

Appl. No. 10/581,988
Amdt. Dated 11/12/2008

Remarks

Favorable reconsideration of this application is respectfully requested in view of the above amendments and following remarks. The Abstract is amended to address informalities. Claims 1 and 7 are amended and supported, for example at paragraph [0039] of Applicants' specification. Claim 2 is amended and is supported with reference, for example to Table 1 and comparison of Example 1 and Comparative Example 1 and paragraph [0013] of Applicants' disclosure. Claim 3 is amended to clarify the relative amounts of fluorine resin and polyimide resin recited in the claim and is supported, for example at paragraph [0025] of Applicants' specification. Claim 11 is added and supported for example at Table 1 of Applicants' specification. No new matter has been added. Claims 1-11 are pending. Claims 1-6 were examined and claims 7-10 are considered withdrawn.

Turning to the substance of the Office Action, the Abstract is objected to for informalities. Applicants respectfully request withdrawal of the objection as the Abstract has been revised to not exceed 150 words.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph as being indefinite. Applicants respectfully traverse this rejection to the extent that it is maintained.

With reference to claim 1, Applicants respectfully submit that claim 1 is definite because the claim has been clarified to recite that the fluorine resin particles melt and are precipitated on at least one face of the tube, where the at least one face is an inner face or both the inner face and an outer face. That is, the at least one face refers to either the inner face or both the inner and outer face. Regarding the term mixture component, Applicants respectfully submit that the tube in its final form comprises the mixture component according to the process limitations recited. Thus, claim 1 is definite.

With reference to claim 2, Applicants respectfully submit that claim 2 is definite because the claim has been clarified to define what requirements are necessary for the tube made of the polyimide resin alone. Claim 2 recites that the inner face of the tube has a dynamic friction resistance that is 70% or less than that of the same tube made of the polyimide resin alone and containing no fluorine resin particles. Applicants respectfully submit that one of skill in the art would understand the medical tubes being compared

Appl. No. 10/581,988
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when the claim is read in light of Applicants' own disclosure. For instance, Example 1 and Comparative Example 1 respectively describe a medical tube obtained according to the principles of the claimed invention (Example 1) and a medical tube obtained according to the conditions of Example 1, but where no fluorine resin is used (Comparative Example 1). Table 1 of Applicants' specification further demonstrates the comparison as the same polyimide resin acid component/amine component is used in both Example 1 and Comparative Example 1, and shows the relative dynamic friction resistance measured. Claim 1 is definite for at least these reasons.

With reference to claim 3, this claim has been revised to clarify the amount of the fluorine resin relative to the polyimide resin. Claim 3 is definite.

For at least the foregoing reasons, Applicants respectfully submit that the claims are definite. Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1, 2, and 4-6 are rejected under 35 U.S.C. 102(a) as being anticipated by or, in the alternative, under 35 U.S.C 103(a) as being obvious over Nakajima (JP 2003-340946). Applicants respectfully traverse this rejection to the extent that it is maintained.

Claim 1 is neither anticipated by nor obvious over Nakajima, because the reference does not disclose or suggest the mixture component as required by claim 1. Claim 1 includes a mixture component where the fluorine resin particles melt and are precipitated on an inner face or both the inner face and an outer face of the tube, and where the fluorine resin particles also are contained inside the polyimide resin. Nakajima, however, does not satisfy this structure. Rather, Nakajima discloses that a fluorine resin layer is initially formed on a core wire with the polyimide layer is formed on the wire thereafter. That is, Nakajima teaches a multi-layer tube which is a two-layer structure distinctly having an inner layer of fluorine resin that is coated with a polyimide layer, and which does not result in the mixture component and structure of claim 1. For at least these reasons, claim 1 and its dependents are allowable over Nakajima.

Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Appl. No. 10/581,988
Amdt. Dated 11/12/2008

Claims 1, 5, and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by or, in the alternative, under 35 U.S.C 103(a) as being obvious over Burns (US 5370655). Applicants respectfully traverse this rejection to the extent that it is maintained.

Claim 1 is neither anticipated by nor obvious over Burns, because the reference does not disclose or suggest the mixture component and its resulting structure as required by claim 1. As discussed above, claim 1 includes a mixture component where the fluorine resin particles melt and are precipitated on an inner face or both the inner face and an outer face of the tube, and where the fluorine resin particles also are contained inside the polyimide resin. Burns also fails to satisfy this structure. While Burns discloses that a fluorine resin layer is on an inner surface, the reference does not disclose or suggest fluorine resin particles contained inside the polyimide resin. Thus, Burns does not satisfy the mixture component and structure of claim 1. For at least these reasons, claim 1 is not obvious.

Moreover, Applicants have discovered that the medical tube of the claimed invention can provide excellent effects, where low dynamic friction resistance is achieved so that a guide wire can be smoothly taken in and out of the tube and where repellency of blood can be achieved such as when the fluorine resin is on the outer surface (see e.g. paragraph [0062] of Applicants' specification. Burns does not disclose or suggest the features of claim 1 and does not recognize the benefits that may be enjoyed from such a structure. For at least the foregoing reasons, claim 1 and its dependents are allowable over Burns.

Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Claim 3 is rejected under 35 U.S.C 103(a) as being obvious over Burns (US 5370655). Applicants respectfully traverse this rejection to the extent that it is maintained.

Burns has been distinguished above. Claim 3 depends upon and further limits claim 1, which is patentable over Burns. Thus, claim 3 is patentable over Burns for at least the same reasons as specified with respect to claim 1. Applicants do not concede the correctness of this rejection.

Appl. No. 10/581,988
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Favorable reconsideration and withdrawal of the rejection are respectfully requested.

Regarding withdrawn claims 7-10, Applicants respectfully request reinstatement of these claims, because they recite a method of manufacturing the medical tube of claim 1 and contain substantially similar limitations. Further, claims 7-10 are allowable for at least the same reasons specified with respect to claim 1.

With the above amendments and remarks, Applicants respectfully submit that the claims are allowable and request favorable action on this application. A Notice of Allowance is respectfully solicited. If any questions arise regarding this communication, the Examiner is invited to contact Applicants' representative listed below.



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Respectfully submitted,

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